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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,156	03/24/2004	Don Wiley Smith	22601-P002C1	7235
7590	10/01/2004		EXAMINER	
ROBERT PLATT BELL 8033 WASHINGTON ROAD ALEXANDRIA, VA 22308			GELLNER, JEFFREY L	
			ART UNIT	PAPER NUMBER
			3643	

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/808,156	SMITH ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jeffrey L. Gellner	3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 24 March 2004.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-34 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-34 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Revocation of Prior Power of Attorney***

The revocation of prior power of attorney which was received 19 August 2004 has been entered into the image file wrapper.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 34 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 34 is indefinite and improper because the cumulative claiming is not permitted.

Multiple dependent claims must refer in the alternative. (see MPEP 608.01(n)).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-7, 18, 20-22, 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (US 4,872,899) in view of Dale (Fred Dale Special to The Star).

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As to Claims 1 and 26, Miller discloses a method of treating established (defining “mature” of col. 9 line 66 as established) distressed (general teaching from “iron chlorosis” of abstract) tree (col. 9 lines 66) exhibiting a decline in health (col. 1 lines 67-68), a root system in soil (col. 9 lines 62-63) comprising applying a mixture to the root area (col. 9 lines 62-67). Not disclosed are the steps of creating a mixture of a fertilizer and a growth hormone. Dale discloses the step of creating a mixture of fertilizer and a root hormone (page 2 1<sup>st</sup> para.). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Miller by using with the mixture Dale so as to increase plant growth.

As to Claim 3, the limitations of Claim 1 are disclosed as described above. Not disclosed is the distressed tree a Post Oak. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the method of Miller as modified by Dale to use with Post Oak since this species are grown property owners.

As to Claim 4, Miller as modified by Dale further disclose a mixture of powders (see Dale).

As to Claims 5 and 7, Miller as modified by Dale further disclose a mixture of liquids (“drench” of Miller at col. 9 line 63).

As to Claim 6, the limitations of Claim 1 are disclosed as described above. Miller as modified by Dale further disclose a fertilizer with an N content of 10% and a potassium content of 10% (see Dale). Not disclosed is the P content at 25%. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the method of Miller as modified by Dale by using a fertilizer with a P content of 25% depending upon availability of fertilizers.

As to Claim 18, Miller discloses a method of treating a distressed (general teaching from “iron chlorosis” of abstract) tree (col. 9 lines 66) exhibiting a decline in health (col. 1 lines 67-68) comprising creating a hole in a root area of a tree (“banded near root zone of row crops (commercial crops, vines, trees) of Miller at col. 9 lines 64-65). Not disclosed is applying a mixture of fertilizer and root growth hormone. Dale, however, discloses the step of creating a mixture of fertilizer and a root hormone (page 2 1<sup>st</sup> para.). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Miller by using with the mixture Dale so as to increase plant growth.

As to Claim 20, the limitations of Claim 18 are disclosed as described above. Not disclosed is creating the hole with a water jet. Examiner takes official notice that it is old and notoriously well known to make a hole with a water jet. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the method of Miller as modified by Dale by using a water jet so as to make the hole in an easy manner.

As to Claim 21, Miller as disclosed by Dale further discloses watering and drying (inherent in “Do not water again until the soil surface is quite dry” of Dale page 2 1<sup>st</sup> para.).

As to Claim 22, Miller discloses a kit for treating established (defining “mature” of col. 9 line 66 as established) distressed (general teaching from “iron chlorosis” of abstract) tree (col. 9 lines 66) exhibiting a decline in health (col. 1 lines 67-68), the root system in soil (col. 9 lines 62-63) comprising a mixture (ferrated rhodotorulic acid” of col. 9 line 62); a container (inherent in “banded” of col. 9 line 64); and, a tool for applying the mixture to the root system within the

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soil (inherent in “banded” of col. 9 line 64). Not disclosed the mixture containing a fertilizer and a growth hormone. Dale discloses a mixture of fertilizer and a root hormone (page 2 1<sup>st</sup> para.).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the kit of Miller by using with the mixture Dale so as to increase plant growth.

As to Claim 24, the limitations of Claim 22 are disclosed as described above. Not disclosed are instructions for applying the mixture. Examiner takes official notice that it is old and notoriously well known in the agronomic art on the instructions as to how to apply fertilizer by banding (col. 9 line 64 of Miller). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the kit of Miller as modified by Dale by having instructions so as to band correctly.

As to Claim 25, Miller as modified by Dale further disclose an implement for applying the mixture (inherent in “banded” of Miller col. 9 line 64).

Claims 2, 8-17, 19, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (US 4,872,899) in view of Dale (Fred Dale Special to The Star) in further view of Green Light Rootone.

As to Claim 2, the limitations of Claim 1 are disclosed as described above. Not disclosed is the use of NAA for the growth hormone. Green Light Rootone, however, discloses the use of NAA as a growth hormone. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the method of Miller as modified by Dale by using Rootone as the growth hormone as disclosed by Green Light Rootone as a known effective root stimulant for use with a wide variety of plants (see Green Light Rootone).

As to Claims 8 and 9, the limitations of Claim 1 are disclosed as described above. Not disclosed is the mixture further including a fungicide. Green Light Rootone, however, discloses use of Thiram in a root mixture. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the method of Miller as modified by Dale by using Rootone which includes Thiram as disclosed by Green Light Rootone so as to increase plant growth.

As to Claim 10, Miller discloses mixture (defined as “drench” of Col. 9 line 63) for treating adult (defining “mature” of col. 9 line 66 as established) distressed (general teaching from “iron chlorosis” of abstract) tree (col. 9 lines 66) exhibiting a decline in health (col. 1 lines 67-68), the root system in soil (col. 9 lines 62-67). Not disclosed is the mixture comprising a fertilizer and NAA. Dale discloses a mixture of fertilizer and a root hormone (page 2 1<sup>st</sup> para.). Green Light Rootone discloses a root growth hormone of NAA. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the mixture of Miller by using the mixture Dale so as to increase plant growth and to further modify the mixture by using Rootone as disclosed by Green Light Rootone depending upon availability of growth hormones.

As to Claim 11, the mixture of Miller as modified by Dale as further modified by Green light Rootone further disclose the hormone comprising about 0.1% weight of the powder (defining “0.2%” as about 0.1% at Green Light Rootone).

As to Claim 12, the mixture of Miller as modified by Dale as further modified by Green light Rootone further disclose the hormone comprising about 0.1% weight of the liquid (defining

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"0.2%" as about 0.1% at Green Light Rootone) when applied as a liquid ("drench" of Miller at col. 9 line 63).

As to Claim 13, the limitations of Claim 10 are disclosed as described above. Not disclosed is a dosage of .335 milligrams per application site. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the mixture of Miller as modified by Dale and Green Light Rootone by using the specific growth hormone concentrations of .335 milligrams per application site so as to optimize the system and promote healthy root growth.

As to Claim 14, the limitations of Claim 10 are disclosed as described above. Miller as modified by Dale and Green Light Rootone further disclose a fertilizer with an N content of 10% and a potassium content of 10 % (see Dale). Not disclosed is the P content at 25%. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the method of Miller as modified by Dale and Green Light Rootone by using a fertilizer with a P content of 25% depending upon availability of fertilizers.

As to Claim 15, Miller as modified by Dale and Green Light Rootone further disclose a mixture of liquids ("drench" of Miller at col. 9 line 63).

As to Claims 16 and 17, Miller as modified by Dale and Green Light Rootone further disclose Thiram in a root mixture (see Green Light Rootone).

As to Claim 19, the limitations of Claim 18 are disclosed as described above. Not disclosed is the use of NAA for the growth hormone. Green Light Rootone, however, discloses the use of NAA as a growth hormone. It would have been obvious to one of ordinary skill in the

art at the time of the invention to further modify the method of Miller as modified by Dale by using Rootone as the growth hormone as disclosed by Green Light Rootone as a known effective root stimulant for use with a wide variety of plants (see Green Light Rootone).

As to Claim 23, the limitations of Claim 22 are disclosed as described above. Not disclosed is the growth hormone being NAA. Green Light Rootone, however, discloses the use of NAA as a growth hormone. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the kit of Miller as modified by Dale by using Rootone as the growth hormone as disclosed by Green Light Rootone as a known effective root stimulant for use with a wide variety of plants (see Green Light Rootone).

Claims 27-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (US 4,872,899) in view of Dale (Fred Dale Special to The Star) in view of Garrett (The time is not ripe to start potatoes).

As to Claim 27-33, Miller discloses a method of treating a distressed (general teaching from “iron chlorosis” of abstract) tree (col. 9 lines 66), comprising applying a mixture to the root area (col. 9 lines 62-67). Not disclosed are the steps of creating a mixture of a fertilizer and a growth hormone and the tree exhibiting reduced number of root hairs, thinning canopy, water spouts on large limbs, and cessation of leaf production, roots with general injury, low growth, and the tree dying. Dale discloses the step of creating a mixture of fertilizer and a root hormone (page 2 1<sup>st</sup> para.); Garrett discloses a tree exhibiting reduced number of root hairs, thinning canopy, water spouts on large limbs, and cessation of leaf production roots with general injury,

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low growth, and the tree dying (Garrett's last question on page 1 carrying over to top of page 2 in that the tree is a post oak suffering from damage during construction). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Miller by using with the mixture Dale so as to increase plant growth and to apply to post oaks exhibiting the above symptoms since the post oak is a tree that cannot handle much disturbance or stress (see Garrett at page 2 2<sup>nd</sup> para.).

As to claim 34, Miller as modified by Dale as further modified by Garrett further disclose an oak (see Garrett at bottom of page 1 and top of page 2).

#### ***Response to Arguments***

Applicant's arguments filed have been fully considered but they are not persuasive. The crux of Applicant's arguments are: (1) Miller deals with crop plants while Smith deals with residential shade trees (Remarks bottom of page 13 top of page 14); (2) Miller uses the term "treatment" but it is not a soil amendment (Remarks page 14 3<sup>rd</sup> complete para.); (3) Miller does not disclose a teaching of disturbing the soil to create a hole in order to apply a solution directly to the root area (Remarks page 15 5<sup>th</sup> complete para.); (4) Miller does not disclose a teaching of applying the treatment material into "the holes opened in the root area of the tree under treatment" (Remarks page 15 6<sup>th</sup> complete para.); (5) Miller discloses different methods of application, material applied, and reasons for application than the instant invention (Remarks page 16 1<sup>st</sup> complete para.); (6) Dale does not disclose a distressed tree (Remarks page 18 4<sup>th</sup> complete para.); Dale does not disclose a mixture of fertilizer and growth hormone (Remarks page 20 1<sup>st</sup> complete para.); (7) Dale does not require a root growth hormone (Remarks page 20

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1<sup>st</sup> complete para.); (8) the hole in Dale is not a hole in the root area as disclosed by the instant application (Remarks page 21 7<sup>th</sup> complete para.); (9) neither Miller or Smith deal with root growth in distressed plant species (Remarks page 23 1<sup>st</sup> complete para.); (10) the combination of Miller and Dale is improper and therefore the combination of Miller, Dale, and Rootone is improper (Remarks page 23 7<sup>th</sup> complete para.); and, (11) in 80 years of use in botanical laboratories and 40 years of use by commercial nurseries and home gardeners the use of IBA or NAA as disclosed by Applicant has not been described (Remarks page 25 3<sup>rd</sup> complete para.).

As to argument (1), Applicant language in the independent claims is in terms of “trees.” The exact type, or species, of tree is not claimed. Miller discloses that his invention can be used with “[m]ature trees” at col. 9, line 66.

As to argument (2), a definition of treatment is “the techniques or actions customarily applied in a specific situation” (Merriam-Webster’s Collegiate Dictionary, 10<sup>th</sup> ed., page 1258) This is what Miller is about. Applying a remedy when a iron chlorosis (a specific situation) is encountered.

As to argument (3), Examiner would agree with Applicant’s characterization of “banding” as employing “a leading or following disc or plow blade.” Regardless of the compositional state of the composition, i.e., drench or spray (as suggested by Applicant) the composition would be placed in the root area of the tree.

As to argument (4), Examiner considers the “banding” technique of Miller, at col. 9 line 64, to encompass a hole created in the root area since in general agricultural “banding” implies placement of a composition below ground level (see, for example, explanation of “sideband” in Soil and Fertility, 3<sup>rd</sup> ed., at page 506).

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As to argument (5), regardless of the exact specifics and intent of Miller, Examiner considers Miller to disclose Applicant's invention as presently claimed.

As to argument (6), Miller discloses a distressed tree, *as per*, the rejection. The Dale reference is used for the teaching of a mixture of fertilizer and root hormone. The rejection/combination is proper because both references deal with the growth of plants which includes their roots. Additionally, since the trees in Dale are being transplanted the trees could be considered distressed.

As to argument (7), the composition of Dale may not require a root hormone along with the fertilizer but it does disclose the use of both together. In general, a reference teaches what it discloses and not just the preferred embodiment (MPEP 2123).

As to argument (8), Miller discloses a hole in the root area. Additionally, Dale does disclose a hole in the root area after the plant is placed in the hole.

As to arguments (9) and (10), the combination of Miller and Dale is proper because Miller deals with a distressed plant (iron chlorosis) and both deal with plant growth which would include root growth. Additionally, since the trees in Dale are being transplanted the trees could be considered distressed.

As to argument (11), Examiner considers the invention of Applicant, as presently claimed, to be disclosed, or described, in Miller combined with Dale.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Jeffrey L. Gellner whose phone number is 703.305.0053. The

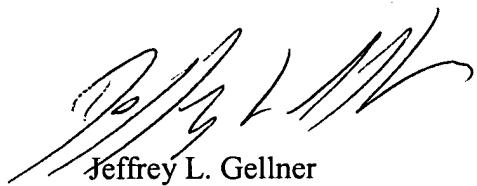
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Examiner can normally be reached Monday through Thursday from 8:30 am to 4:00 pm. The Examiner can also be reached on alternate Fridays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Peter Poon, can be reached at 703.308.2574. The official fax telephone number for the Technology Center where this application or proceeding is assigned is 703.872.9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.1113.



Jeffrey L. Gellner  
Primary Examiner